

## REMARKS

The application is objected to under 37 CFR 1.172(a) as lacking written consent of all assignees owning an undivided interest in U.S. Patent No. 5,813,191 (hereinafter also referred to as the "Gallagher Patent"), and because the assignee has not established its ownership interest in the Gallagher Patent. Further, the Office Action alleges that the person signing the submission establishing ownership has failed to state his/her capacity to sign for the corporation and has not established as being authorized to act on behalf of the assignee.

Applicant respectfully traverses the above objections and alleged failure, however, to eliminate the above issues, applicant has filed even date a Document Transmittal letter filing REISSUE APPLICATION; CONSENT OF ASSIGNEE; STATEMENT OF NON-ASSIGNMENT Form PTO/SB/53 and STATEMENT UNDER 37 CFR 3.73(b) Form PTO/SB/96 to replace the ASSENT OF ASSIGNEE TO REISSUE mailed September, 20, 1999.

Based on the forgoing, applicant respectfully requests withdrawal of the objections to the application and acknowledgement that the failure is corrected.

The office Action alleges that the reissue declaration is defective for the reasons stated in the Office Action. Applicant respectfully traverses the allegation, however, to eliminate this issue a THIRD SUPPLEMENTAL REISSUE DECLARATION UNDER 36 CFR 1.175 is filed with the Document Transmittal letter correcting the defects identified in the Office Action.

Based on the forgoing, applicant respectfully requests acknowledgement that the defects to the declaration/oath have been corrected.

Claims 1-55 are pending in the application of which claims 3, 7, 47 and 54 are cancelled without prejudice to eliminate issues, and claims 1, 4-6, 8-11, 13-16, 18, 19, 21, 23, 25, 32, 33, 35, 36, 42-46, 48-53 and 55 are amended to more positively recite applicant's patentably novel spacer stock, spacer frame and insulating unit. No claims are allowed or allowable.

For the sake of convenience, the amendments to claims 35, 36, 42-46, 48-53 and 55 are shown on the ADDENDUM pages 28-32 of this amendment. A deletion in the claims on pages 28-32 is shown by a strike through, and an addition to the claims, is shown by an underline.

**Claims 1-55 are rejected as being base upon a defective reissue declaration under 35 U.S.C. 251.** Applicant respectfully traverses the rejection of claims 1-55 as being based upon a defective reissue declaration, however, to eliminate this issue a THIRD SUPPLEMENTAL REISSUE DECLARATION UNDER 36 CFR 1.175 as discussed above is filed even date.

Based on the forgoing, applicant respectfully requests withdrawal of the rejection of claims 1-55 as being based upon a defective reissue declaration.

**Claims 43-48 and 50-55 are objected to under 37 CFR 1.75** as being substantial duplicates of claims 36-41. Applicant respectfully traverses the objection to claims 43-48 and 50-55, however to eliminate this issue, the following action is taken. Claims 47 and 54 are cancelled without prejudice; claims 43-46 and 48 are amended to directly or indirectly depend from, and to be consistent with, claim 42, and claims 50-53 and 55 are amended to directly or indirectly depend from, and to be consistent with claim 49.

Support for claims 43 and 50 is found, among other places, in Figs. 1, 2, 3, 11 and 12, in the pending claims, in column 3, lines 15-27, in column 8, lines 1-18, and in column 10, lines 47-52, of the Gallagher Patent; in particular, in column 8, lines 1-10.

Support for claims 44-46 and 51-53 is found, among other places, in Figs. 1 2, 3, 11 and 12, in the claims, in column 3, lines 15-27, in column 8, lines 1-18, and in column 10, lines 47-52, of the Gallagher Patent; in particular, in column 4, line 66 to column 5, line 12.

Support for claims 48 and 55 is found, among other places, in Figs. 1 2, 3, 11 and 12, in the claims, in column 3, lines 15-27, in column 8, lines 1-18, and in column 10, lines 47-52, of the Gallagher Patent; in particular, in column 11, lines 1-5.

Based on the forgoing, applicant respectfully requests withdrawal of the objection to claims 43-46, 48, 50-53 and 55.

**Claim 10 is rejected under 35 U.S.C. 112, first paragraph,** as failing to comply with the enablement requirement. The Office Action alleges that there is no description at all of "weaking" or "weakening lines" arranged in a generally V-shape. Applicant respectfully traverses the rejection of claim 10 under 35

U.S.C. 112, first paragraph, however, to eliminate this issue, claim 10 is amended to recite that "the first member of the first and second legs at corners have crease lines arranged to have a generally "V" shape." Support for the amendment to claim 10 is found, among other places, in Fig. 10 and column 9, line 57 to column 10, line 15 of the Gallagher Patent.

Based on the forgoing, applicant respectfully requests withdrawal of the rejection of claim 10 under 35 U.S.C. 112, first paragraph.

**Claims 5, 6, 9-11, 14-16, 18, 19, 21-31 and 33 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully traverses the rejection of claims 5, 6, 9-11, 14-16, 18, 19, 21-31 and 33 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, however, to eliminate this issue, applicants have amended claims 5, 6, 9, 10, 14, 18, 19, 21, 23 and 33 to overcome the rejection of the claims as being indefinite. Support for the amendment to claims 5, 6, 9, 10, 14, 18, 19, 21, 23 and 33 is found, among other places in pending claims 1-34.

Based on the forgoing, applicant respectfully requests withdrawal of the rejection of claims 5, 6, 9-11, 14-16, 18, 19, 21-31 and 33 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claims 1, 2, 8, 13-15 and 32 are rejected under 35 U.S.C. 102(b)** as being anticipated by U.S. Patent No. 1,457,303 to Higgins (hereinafter also referred to as "Higgins"). Applicant respectfully traverses the rejection of claims 1, 2, 8, 13-15 and 32 under 35 U.S.C. 102(b) as being anticipated by Higgins; however, to eliminate this issue the following action is taken.

Claim 1 is an independent claim having claim 2 dependent thereon; Claim 13 is an independent claim having claims 14 and 15 dependent thereon, and claims 8 and 32 are independent claims. Claims 1, 8, 13-15, and 32 are amended to more positively recite applicant's patentably novel claimed invention.

Consider claims 1 and 2. Claim 1 is amended to recite an elongated spacer stock used in the manufacture of a spacer frame to separate sheets of an insulating unit, the spacer stock includes, among other things:

- an elongated base;

- a first elongated leg having a first member and a second member joined together to have a generally U-shaped cross section;

- a second elongated leg having a first member and a second member joined together to have a generally U-shaped cross section;

- wherein the first members of the first and second legs are joined to the base to provide the spacer stock with a generally U-shaped cross section with open end of the U formed by the first and second legs and the base open in a first direction, the U-shaped cross section of the first leg open in a second direction, and the U-shaped cross section of the second leg open in the second direction with the first and second directions opposite to one another, and

- wherein the first and second members of the first leg are spaced from and out of contact with one another; the first and second members of the second leg are spaced from and out of contact with one another; the second member of the first and the second legs are spaced from one another, and the first and second legs are connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg.

Support for the amendment to claim 1 is found, among other places, in Fig. 2, col. 7, lines 25-40 and col. 8, lines 1-27 of the Gallagher Patent. Based on the forgoing, applicant respectfully requests admission of the amendments to claim 1 and consideration of claims 1 and 2.

Claims 1 and 2 each recite that the first and the second members of the first and the second legs are spaced from one another to provide the spacer stock with a low thermal path between the second members of the first and the second legs. Higgins, on the other hand, shows and discloses that the flanges 7 are doubled at 9 (see Figs 3 and 4 and disclosure on lines 70-82). Unlike applicant's claim 1, which recites that the first and second members of the legs are spaced from one another, Higgins discloses that the flange 7 is doubled

and the two members of the flange contact one another (see Figs. 1-4 of Higgins).

Consider now claim 8. Amended claim 8 recites an elongated spacer stock used in the manufacture of a spacer frame to separate sheets of an insulating unit. The spacer stock includes, among other things:

- a base:

- an unbent one piece first leg connected to the base; and

- an unbent one piece second leg connected to the base and spaced from the first leg, wherein the legs and the base are connected to provide a generally U-shaped cross-section, wherein the one piece first and second legs each have a thickness greater than the thickness of the base, wherein the thickness of each of the first and second legs is 2 to 5 times greater than the thickness of the base to reduce torsional twist of the spacer stock and to reduce thermal conductivity of the spacer stock between the first and second legs.

Support for the amendment to claim 8 is found, among other places, in Fig. 6 and col. 7, lines 52-67. Based on the forgoing, applicant respectfully requests admittance of the amendments to, and consideration of, claim 8.

Applicant respectfully submits that there is disclosure in Higgins that the flange 7 is made of an unbent one piece member having a thickness greater than the thickness of the webs 2 and 8, e.g. 2-5 times thicker.

Consider now claims 13-15. Amended claim 13 on which claims 14 and 15 are dependent recites a closed spacer frame for separating sheets of an insulating unit. The closed spacer frame includes, among other things:

- a base defining perimeter of the closed spacer frame;

- a first leg connected to the base, the first leg defining a side of the spacer frame and having a first member and a second member joined together to have a generally U-shaped cross section wherein the first member and the second member of the first leg are spaced from one another;

- a second leg connected to the base, the second leg defining an opposite side of the spacer frame and having a first member and a second member joined together to have a generally U-shaped cross

section wherein the first member and the second member of the second leg are spaced from one another; wherein

the first and second legs are spaced from and out of contact with one another and connected to the base to provide the spacer frame with a generally U-shaped cross section with open end of the U-shaped cross section of the spacer frame facing in a first direction and opening of the U-shaped cross section of the first and second legs facing in a second direction opposite to the first direction to reduce torsional twist, and the first and second legs are connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg.

Support for the amendments to claims 13-15 are found, among other places, in the claims, Fig. 2, col. 7, lines 25-40 and col. 8, lines 1-27 of the Gallagher Patent. Based on the forgoing, applicant respectfully requests admission of the amendments to claims 13-15 and consideration of claims 13-15.

Claims 13-15 recite that the first and the second members of the first and the second legs are spaced from one another to provide the spacer stock with a low thermal path between the second members of the first and the second legs. Higgins, on the other hand, shows and discloses that the flanges 7 are doubled at 9 (see Figs 3 and 4 and disclosure on lines 70-82 of Higgins). Unlike applicant's claim 13, which recites that the first and second members of the legs are spaced from one another, Higgins discloses that the flange 7 is doubled and the two members of the flange contact one another (see Figs. 1-4 of Higgins).

Consider now claim 32. Amended claim 32 recites a method of making and using a spacer stock by, among other things,

providing a strip of bendable material, and

shaping the strip to provide an elongated piece of spacer stock having a base, a first leg and a second leg, the base and legs joined to provide the spacer stock with a generally U-shaped cross section with the U-shaped cross section open in a first direction and the first and second legs spaced from one another and out of contact with one

another, and the legs each having a first member joined to and spaced from a second member to have a U-shaped cross section with the opening of the U-shaped cross section of the first and second legs open in a second direction opposite to the first direction to reduce torsional twist of the spacer stock and the first and second legs connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg.

Support for the amendments to claim 32 is found, among other places, in the pending claims, Figs. 8 and 9 and col. 9, lines 11-32. Based on the forgoing, applicant respectfully requests admission of the amendments to claim 32 and consideration of claim 32.

Applicant respectfully submits that there is no disclosure in Higgins to anticipate applicant's method recited in claim 32. More particularly, Higgins, shows and discloses that the flanges 7 are doubled at 9 (see Figs 3 and 4 and disclosure on lines 70-82 of Higgins), whereas the spacer stock made by the practice of applicant's method recited in claim 32, has the first and second members of the first and the second legs spaced from one another.

Based on the forgoing, applicant respectfully requests withdrawal of the rejection of claims 1, 2, 8, 13-15 and 32 under 35 U.S.C. 102(b) as being anticipated by Higgins.

**Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,464,874 to Shea Jr. et al (hereinafter also referred to as "Shea").** Applicant respectfully traverses the rejection of claim 8 under 35 U.S.C. 102(b) as being anticipated by Shea, however, to eliminate this issue claim 8 as discussed above is amended. The Office Action alleges that Shea illustrates in Fig. 2 a window spacer having legs thicker than the base of the spacer. Applicant respectfully submits that there is no disclosure in Shea that the drawings are made to scale and that the legs 31 and 32 are 2-5 times thicker than the base 24.

Assuming for the sake of discussion only that one skilled in the art would notice that the legs of Shea are thicker than the base. The person skilled in the art is would not be taught by Shea that the thickness of the legs should be

sufficient to prevent or reduce torsional twist of the spacer while reducing thermal conductivity of the spacer stock. Applicant on the other hand recites in claim 8 that the legs are 2-5 times greater than the base to reduce torsional twist and to reduce thermal conductivity of the spacer stock (see col. 7, lines 52-67 of the Gallagher Patent).

Based on the forgoing, applicant respectfully requests withdrawal of the rejection of claim 8 under 35 U.S.C. 102(b) as being anticipated by Shea.

**Claims 1, 2, 4, 6, 13-18, 20-27, 33 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,439,716 to Larsen (hereinafter also referred to as "Larsen").** Applicant respectfully traverses the rejection of claims 1, 2, 4, 6, 13-18, 20-27, 33 and 34 under 35 U.S.C. 102(b) as being anticipated by Larsen, however, to reduce the issues the following action is taken.

Claims 2, 4 and 6 are dependent on claim 1, and claims 1, 4 and 6 are amended. Claims 12-18, 20 and 23 are dependent on claim 13, and claims 13-16, 18 and 23 are amended. Claims 22, 24-27 are dependent on claim 21, and claims 21 and 25 are amended. Claims 33 and 34 are dependent on claim 32 discussed above, and claim 33 is amended.

Consider now claim 1 and claims 2, 4 and 6 dependent thereon. Claims 1, 4, and 6 are amended. Claims 1 and 2 were discussed above. Claims 4 and 6 are amended to be consistent with the amendment to claim 1 and the cancellation of claim 2. Support for the amendments to claims 4 and 6 is found, among other places, in the pending claims.

Claim 1 sets forth a spacer stock having, among other things,

... first and second members of the first leg are spaced from and out of contact with one another; the first and second members of the second leg are spaced from and out of contact with one another; the second member of the first and the second legs are spaced from one another, and the first and second legs are connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg.

The spacer stock of Larsen as shown in the drawing, e.g. Figs 4, 6 and



9A has two thermal conductive paths; one path along the member 70 and the other path along the base. Applicant on the other hand, sets forth in claim 1 that the spacer stock has only one thermal conductive path by the reciting that "... the first and second legs are connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg."

Consider now claim 13 and claims 14-18, 20 and 23 dependent thereon. Claims 13-16, 18 and 23 are amended. Claims 13-15 were discussed above. Claims 16, 18 and 23 are amended to be consistent with amended claim 13. Support for the amendments to claims 16, 18 and 23 is found, among other places, in the pending claims. Based on the forgoing, applicant respectfully requests admission of the amendments to claims 16, 18 and 23 and consideration of claims 13-18, 20 and 23.

Claim 13 sets forth, a closed spacer frame having, among other things,  
... first and second legs are spaced from and out of contact with one another and connected to the base to provide the spacer frame with a generally U-shaped cross section ... and the first and second legs are connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg.

As discussed above, the spacer stock and the spacer frame of Larsen as shown in the drawing, e.g. Figs 4, 6 and 9A has two thermal conductive paths. Applicant on the other hand, sets forth in claim 13 that the closed spacer frame has only one thermal conductive path by the reciting that "... the first and second legs are connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg."

Consider now claim 21 and claims 22 and 24-27 dependent thereon. Claims 21 and 25 are amended. Amended claim 21 recites an insulating unit having, among other things,

- a pair of sheets;
- a spacer frame between the pair of sheets, and the spacer frame comprising:
  - a base;
  - a first leg
  - a second leg; wherein

the first and second legs are spaced from and out of contact with one another and joined to the base to provide the spacer frame in cross section with a generally U-shaped cross section with the open end of the U-shaped cross section facing a first direction and the first and second legs each including a first member having two ends, one end attached to the base and the remaining end joined by a radiused portion to a second member such that the first and the second members form a generally U-shaped cross-sectional configuration with the opening of the U-shaped cross-sectional configuration facing a second direction opposite to the first direction to reduce torsional twist, and the first and second legs are connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg, and

means for securing the sheets to the spacer frame.

Support for the amendments to claims 21 and 25 is found, among other places, in the pending claims, Figs. 8 and 9 and col. 9, lines 11-32 of the Patent. Based on the forgoing, applicant respectfully requests admission of the amendments to claims 21 and 25 and consideration of claims 21, 22 and 25-27.

As can now be appreciated, the spacer stock, the spacer frame and the insulated unit of Larsen as shown in the drawing, e.g. Figs 4, 6 and 9A has two thermal conductive paths, e.g. the conductive path along the member 70 and the other conductive path along the base. Applicant on the other hand, sets forth in claim 21 that the insulating unit has only one thermal conductive path by the reciting that "... the first and second legs are connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg."

Consider now claims 33 and 34, which claims are dependent on amended claim 32 discussed above. Claim 33 is amended to be consistent with amended claim 32. Applicant notes that claim 32 is not rejected as being anticipated by Larsen.

Claims 32-34 each set forth a method of making spacer stock by, among other things, shaping a strip

...to provide an elongated piece of spacer stock having a base, a first leg and a second leg, ... the first and second legs spaced from one another and out of contact with one another, and the legs each having a first member joined to and spaced from a second member ... and the first and second legs connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg.

As discussed above, the spacer stock of Larsen as shown in the drawing, e.g. Figs 4, 6 and 9A has two thermal conductive paths, and therefore the method of making the spacer stock of Larson will include a spacer stock having two conductive paths, e.g. one conductive path through the member 74 and a second conductive path through the base, see Fig. 9A off Larsen.

Applicant on the other hand, sets forth in claim 32 that the method includes shaping a strip to provide a spacer stock having, among other things, only one thermal conductive path by the reciting that "... the first and second legs are connected to one another only by the base to provide only one thermal conducting path from the first leg to the second leg."

Based on the forgoing, applicant respectfully requests withdrawal of the rejection of claims 1-4, 6, 13-18, 20-27, 33 and 34 under 35 U.S.C. 102(b) as being anticipated by Larsen and respectfully requests allowance of claims 1-4, 6, 13-18, 20-27, 33 and 34.

**Claims 21-25, 28-30, 35-46, 48-53 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 475 213 to Hodek (hereinafter also referred to as "Hodek") in view to Higgins.** The Office Action alleges that it would have been obvious at there time of the invention to one having ordinary skill in the art that the U-shaped spacer of Hodek could have also had its upstanding legs folded over to a double thickness so as to increase the rigidity of the spacer as taught by Higgins.

Applicant respectfully traverses the rejection of claims 21-25, 28-30, 35-46, 48-53 and 55 under 35 U.S.C. 103(a) as being unpatentable over EP 0 475

213 to Hodek in view to Higgins, however to eliminate this issue, claims 21, 23, 25, 35, 36, 42-46, 48-53 and 55 are amended to more positively recite applicant's patentably novel spacer stock, spacer frame and insulating unit. Claims 22-25 and 28-30 are dependent on claim 21; claims 36-41 are dependent on claim 35, claims 43-46 and 48 are dependent on claim 42; and claims 50-53 and 55 are dependent on claim 49. Claims 21-25, 28-30 and Higgins were discussed above.

Amendments to claims 43-46, 48, 50-53 and 55 were discussed above. Support for the amendments to claims 35 and 36 is found, among other places, in Fig. 2, col. 7, lines 25-40 and col. 8, lines 1-27 of the Gallagher Patent. Support for the amendments to claim 42 is found, among other places, in the claims, Fig. 2, col. 7, lines 25-40 and col. 8, lines 1-27 of the Gallagher Patent. Support for the amendments to claim 49 is found, among other places, in the pending claims, Figs. 8 and 9 and col. 9, lines 11-32 of the Gallagher Patent.

Based on the forgoing, applicant respectfully requests admittance of the amendment to claims 35, 36, 42-46, 48-53 and 55, and consideration of claims 35-46, 48-53 and 55.

Applicant respectfully submits that one skilled in the art without the disclosure of the Gallagher Patent would not combine Hodek and Higgins, and if combined, they would not combine Hodek and Higgins as recited in applicant's claims 21-25, 28-30, 35-46, 48-53 and 55. More particularly, one skilled in the art would not combine Higgins and Hodek because there is no discussion in Hodek of a problem with torsional twisting of the spacer stock, spacer frame and/or insulating unit. Hodek on page 12 lines 9-25 discusses compressive forces acting on the spacer frame. Based on the disclosure of Hodek, one skilled in the art would increase the thickness of the base to counter act the compression forces and would not strengthen the legs of the spacer stock and spacer frame to prevent or minimize torsional twist. Since Higgins discusses strengthening the legs and not the base, one skilled in the art would not combine Hodek and Higgins.

Consider now that one skilled in the art would combine Hodek and Higgins. The spacer of Hodek would include a base and a pair of legs, each of the legs having a first member contacting a second member. The combination of Hodek and Higgins does not render unpatentable the inventions of claims

21-25, 28-30, 35-46, 48-53 and 55. More particularly, independent claim 21 recited in one form or another that the first and second members of the first and second legs are spaced from one another. This feature is not taught by combining Hodek and Higgins.

Consider now claims 35-46, 47-53 and 55.

Further, independent claims 35, 42 and 49 each recite in one form or another that the first and the second member of each of the first and the second legs are spaced from one another. As discussed above, this feature is not shown in the combination of Hodek and Higgins.

Based on the forgoing, applicant respectfully requests withdrawal of the rejection of claims 21-25, 28-30, 35-46, 48-53 and 55 under 35 U.S.C. 103(a) as being unpatentable over Hodek in view of Higgins.

**Claims 1, 2, 8, 9, 11-15, 17-19, 21-25, 28-46, 48-53 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,617,699 to Thompson (hereinafter also referred to as "Thompson") in view of Higgins.** Applicant respectfully traverses the rejection of claims 1, 2, 8, 9, 11-15, 17-19, 21-25, 28-46, 48-53 and 55 under 35 U.S.C. 103(a) as being unpatentable over Thompson in view of Higgins and requests reconsideration thereof.

Applicant respectfully submits that the rejection of claims 1, 2, 8, 9, 11-15, 17-19, 21-25, 28-46, 48-53 and 55 under 35 U.S.C. 103(a) as being unpatentable over Thompson in view of Higgins is not a proper rejection. The application for Thompson was filed 09/15/1995 and issued on 04/08/1997. The application for the Gallagher Patent was filed 08/29/1996 and the patent issued 09/29/1998. Thomson is a continuation in part of U.S. Patent No. 5,553,440 issued on 09/10/1996. The subject matter disclosed in Thomson used by the Office Action in the rejection of claims 1, 2, 8, 9, 11-15, 17-19, 21-25, 28-46, 48-53 and 55 is not disclosed in U.S. Patent No. 5,553,440. The undersigned prepared and prosecuted the patent applications that subsequently issued into the patent to Gallagher, the patent to Thomson and the patent to Bulger et al. The undersigned states that based on his personal knowledge, Gallagher, Thomson and Bulger were employees of PPG Industries, Inc. and PPG Industries, Inc. owned the claimed inventions at the time the inventions were


made.

Based on the forgoing, applicant respectfully requests withdrawal of the rejection of claims 1, 2, 8, 9, 11-15, 17-19, 21-25, 28-46, 48-53 and 55 under 35 U.S.C. 103(a) as being unpatentable over Thompson in view of Higgins and requests allowance of claims 1, 2, 4-6, 8-46, 48-53 and 55.

This Amendment represents a sincere effort to place this application in condition for allowance. In the event issues remain, the Examiner is invited to call Mr. Andrew Siminerio at 412-434-4645, or the undersigned to discuss those issues before further action on the case is taken.

Respectfully submitted,

DONALD C. LEPIANE  
Registration No. 25,996  
Attorney of Record

  
Telephone: 412-434-2884  
Facsimile: 412-434-4292

Pittsburgh, Pennsylvania

October 13, 2009

## ADDENDUM

### Amendments to Claims 35, 36, 42-46, 48-53 and 55

A deletion to the claims is shown by a strike through, and an addition to the claims is shown by an underline.

Claim 35. (Twice Amended) An elongated spacer stock used in the manufacture of a spacer frame to space sheets of an insulating unit, the spacer stock comprising:

an elongated base having a supporting surface;

an elongated first leg having a first elongated member joined to the elongated base and a second elongated member joined to and spaced from the first elongated member of the first leg and the second elongated member of the first leg having an end portion positioned over and spaced from the supporting surface of the base;

an elongated second leg having a first elongated member joined to the elongated base and a second elongated member joined to and spaced from the first elongated member of the second leg and the second elongated member of the second leg having an end portion positioned over and spaced from the supporting surface of the base, the first elongated member and the second elongated member of the first leg joined together to provide the first leg with a U-shaped cross section and the first elongated member and the second elongated member of the second leg joined together to provide the second leg with a U-shaped cross section, and the first and the second legs and the base joined together to provide the elongated spacer stock with have a U-shaped cross section, wherein the open end of the U-shaped cross section of the first and the second legs each open in a first direction and the open end of the U-shaped cross section of the spacer stock opens in a second direction opposite to the

first direction and the supporting surface of the base is between the first elongated member of the first and the second legs; and

a bead on the supporting surface of the base with portions of the bead between the supporting surface of the base and the end portion of the second elongated members of the first and second legs.

Claim 36 (Amended). The spacer stock of claim 35 wherein the end portion ~~portions~~ of at least one of the second members of the first and ~~or~~ second legs limits movement of the bead away from the supporting surface of the base.

Claim 42. (Three Times Amended) A closed spacer frame to space sheets of an insulating unit, the closed spacer frame comprising:

an elongated base having a supporting surface;

an elongated first leg having a first elongated member joined to the elongated base and a second elongated member joined to and spaced from the first elongated member of the first leg and the second elongated member of the first leg having an end portion positioned over and spaced from the supporting surface of the base;

an elongated second leg having a first elongated member joined to the elongated base and a second elongated member joined to and spaced from the first elongated member of the second leg and the second elongated member of the second leg having an end portion positioned over and spaced from the supporting surface of the base, the first elongated member and the second elongated member of the first leg joined together to provide the first leg with a U-shaped cross section and the first elongated member and the second elongated member of the second leg joined together to provide the second leg with a U-shaped cross section , and the first and the second legs and the base joined together to provide the spacer frame with have a U-shaped cross section, wherein the open end of the U-shaped



cross section of the first and the second legs each open in a first direction and the open end of the U-shaped cross section of the spacer frame opens in a second direction opposite to the first direction and the supporting surface of the base is between the first elongated member of the first and the second legs; and

a bead on the supporting surface of the base with portions of the bead between the supporting surface of the base and the end portion of the second elongated members of the first and second legs.

Claim 43 (Amended). The spacer frame ~~stock~~ of claim 4235 wherein the end portion ~~portions~~ of at least one of the second members of the first and or second legs limits movement of the bead away from the supporting surface of the base.

Claim 44 (Amended). The spacer frame ~~stock~~ of claim 4336 wherein the bead is made of a moisture pervious material.

Claim 45 (Amended). The spacer frame ~~stock~~ of claim 4436 wherein the bead has desiccant therein.

Claim 46 (Amended). The spacer frame ~~stock~~ of claim 4437 wherein the moisture pervious material is a moisture pervious adhesive.

Claim 48 (Amended). The spacer frame ~~stock~~ of claim 4240 wherein the spacer frame has four corners and stock has a first end and an opposite end defined as a second end and the first and second ends are to be joined to provide the closed spacer frame wherein the base is continuous from the first end to the opposite end around at least three of the four corners.

Claim 49 (Twice Amended). An insulating unit comprising:  
a pair of sheets;  
a spacer frame between and adhered to the pair of sheets  
by an adhesive, the spacer frame comprising:

an elongated base having a supporting surface;  
an elongated first leg having a first elongated member joined to the elongated base and a second elongated member joined to and spaced from the first elongated member of the first leg and the second elongated member of the first leg having an end portion positioned over and spaced from the supporting surface of the base;

an elongated second leg having a first elongated member joined to the elongated base and a second elongated member joined to and spaced from the first elongated member of the second leg and the second elongated member of the second leg having an end portion positioned over and spaced from the supporting surface of the base, the first elongated member and the second elongated member of the first leg joined together to provide the first leg with a U-shaped cross section and the first elongated member and the second elongated member of the second leg joined together to provide the second leg with a U-shaped cross section, and the first and the second legs and the base joined together to provide the spacer frame with have-a U-shaped cross section, wherein the open end of the U-shaped cross section of the first and the second legs each open in a first direction and the open end of the U-shaped cross section of the spacer frame opens in a second direction opposite to the first direction and the supporting surface of the base is between the first elongated member of the first and the second legs; and

a bead on the supporting surface of the base with portions of the bead between on the supporting surface of the base and the end portion of the second elongated members of the first and second legs.

Claim 50 (Amended).      The insulating unit spacer ~~stock~~ of claim 4935 wherein the end portion ~~portions~~ of at least one of the second members of the first and ~~or~~ second legs limits movement of the bead away from the supporting surface of the base.

Claim 51 (Amended). The insulating unit spacer ~~stock~~ of claim 5036 wherein the bead is made of a moisture pervious material.

Claim 52 (Amended). The insulating unit spacer ~~stock~~ of claim 5137 wherein the bead has desiccant therein.

Claim 53 (Amended). The insulating unit spacer ~~stock~~ of claim 5137 wherein the moisture pervious material is a moisture pervious adhesive.

Claim 55 (Amended). The insulating unit spacer ~~stock~~ of claim 4940 wherein the spacer frame ~~stock~~ has three corners and a first end and an opposite end defined as a second end and the first and second ends are to be joined to provide the closed spacer frame wherein the base is continuous from the first end to the opposite end around at least three of the four corners.